TECHNICAL REVIEW DOCUMENT
For
Significant Permit Modification to
OPERATING PERMIT 96OPJE139

to be issued to:

Rocky Mountain Metal Container
Jefferson County
Source ID 0590006

Cathy Rhodes
April, 2004

I. PURPOSE:

This document will establish the basis for decisions made regarding the applicable requirements, emissions factors, monitoring plan and compliance status of emission units covered by the operating permit proposed for this site. It is designed for reference during the review of the proposed permit by the EPA, the public, and other interested parties. The conclusions made in this report are based on information provided in the significant permit modification application submittal of April 14, 2004.

Any revisions made to the underlying construction permits associated with this facility in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised Construction Permit.

II. SOURCE DESCRIPTION:

This facility produces aluminum cans for the Coors Brewery and other entities under SIC Code 3411, and is considered by the Division to be a support facility for the Coors Brewery, under SIC Code 2082.

This facility is located in Golden, Jefferson County. The area is classified as attainment/maintenance for 1-hr ozone/VOC, carbon monoxide, and particulate matter less than 10 microns in size (PM_{10}) Under that classification, all SIP-approved requirements will continue to apply in order to prevent backsliding under the provisions of Section 110(1) of the Federal Clean Air Act. Note that the entire 1-hr ozone/VOC attainment/maintenance area is also part of the 8-hr Ozone Control Area as defined in Regulation No. 7, Section II.A.16.

This facility, along with the Coors Brewery, Valley Support, and McIntyre facilities (permitted under 96OPJE140) and TriGen Colorado Energy Corporation (permitted under 96OPJE143) are considered to be a single major source for PSD purposes.

There are no affected states within 50 miles of the facility. There are two Federal Class I areas within 100 kilometers of the facility: Rocky Mountain National Park and Eagle s Nest National Wilderness Area.

Facility wide emissions (except not including the Golden Business Unit or TriGen emissions) are as follows (tons/year):

Pollutant	Potential	Actual
Particulate Matter (PM)	83.4	17
PM_{10}	83.4	17
Nitrogen Oxides (NO_x)	26.6	6
Volatile Organic Compounds (VOC)	428.8	157
CO	24.4	1
H_2S	2.6	2.6
HAPs	512	N/A

Potential emissions are as presented in the Operating Permit application. Actual emissions are based on APEN submittals. HAPs consist mostly of Glycol Ethers (including 2-butoxyethanol), Methanol, Sulfuric Acid, and Ammonia.

Total emissions for the Coors Brewery complex, Rocky Mountain Metal Container, and TriGen Colorado Energy Corporation are as follows:

Pollutant	Potential	Actual
Particulate Matter (PM)	3573	74
PM_{10}	1256	56
Nitrogen Oxides (NO_x)	3722	1612
Volatile Organic Compounds (VOC)	1058	547
CO	687	210
Sulfur Dioxide (SO_2)	7223	2832

III. PERMIT MODIFICATION

Construction Permit 01JE0643 was issued for a PSD major modification to this facility, to increase production. This permit modification incorporates the requirements of the Construction Permit into the operating permit. In addition, the facility is subject to the Maximum Achievable Control Technology (MACT) standards for Metal Can Surface Coating. The EPA promulgated this MACT standard on November 13, 2003, with revisions published on January 6, 2006, which became effective on March 7, 2006. This permit

modification incorporates the MACT standard, as required in Regulation No. 3, Part C, Section XIII.

Construction Permit 01JE0643 was issued for can lines C04, C05, CX3 and C24. The use of ultraviolet light (UV)-cure inks and overvarnish was replaced with thermally cured ink and overvarnish and new cleaning solvents were permitted. Emissions from the modified coating operations are controlled by two (2) regenerative thermal oxidizers (RTOs).

Status of C24 Can Line

The permitted modifications to C24 are not going to be made, therefore C24 reverts back to a grandfathered source for construction permitting purposes. The UV coatings from this line are not vented to the RTOs. The internal coating operations are vented to an RTO. The internal coating overspray emissions are controlled by the baghouse. The permit included an emission limit for total emissions from the can lines.The emission limit is therefore revised as discussed below.

In addition, since no change was made to the C24 line, the line is not subject to the New Source Performance Standards (NSPS) for Metal Can Surface Coating (Subpart WW).

Status of CX3 Can Line

Can Line CX3 consists of two production lines: a 8/10 oz. can production side and a 12-oz. can production side. The application for the operating permit indicates that the 12-oz. production side will not be modified as permitted in 01JE0643. The 12-oz. production side printing and overvarnish emissions are not vented to the RTOs. UV coating are used. Internal coating operations are vented to the RTOs, and overspray emissions are controlled by baghouse. The 8/10 oz. side is modified to use thermal coatings as permitted in Construction Permit 01JE0643. In 1987, the CX3 can line was permitted under Construction Permit 87JE015. Construction Permit 87JE015 was issued as a synthetic minor modification for PSD purposes. The permit required the use of low VOC coatings and the use of non-VOC cleanup solvent. RMMC desires to retain both sides of CX3 in the permitted facility wide emission limit. The Division has determined that the emissions from the entire CX3 can line can be included in the facility wide emission limit because the overall emissions used in the PSD Construction Permit application for the CX3 can line to determine the facility wide limit are less than the emission limit permitted in 87JE015. The operating permit will include the coating composition requirements from 87JE015 for the 12-oz production line. Permit 87JE015 required the use of non-VOC cleanup materials. The 01JE0643 PSD analysis included the use of VOC-containing materials, therefore the non-VOC material requirement is not included in this operating permit.

The CX3 internal coating operations and remain subject to the NSPS Subpart WW.

Revision to Facility Wide Emission Limits
To account for the modifications that were not made to the C24 and CX3 12-oz lines, the 01JE0643 emission limits are revised as follows (tons/year):

Pollutant	01JE0643 Limit	New Limit*
PM/PM_{10}	4.9	3.1
VOC	265.9	214.25
NOx	25.2	20.8
CO	37.4	20.2

*Does not include C24 emissions.

Applicable Requirements - The C24 Can Line is grandfathered from construction Permit requirements. The remaining can lines remain permitted under Construction Permit 01JE0643. Applicable requirements are as follows.

All Can Lines

- Colorado Regulation No. 1
  - Limits opacity to 20 or 30% (II.A.1 & 4)
  - Limits PM emissions based process weight (III.C.1.a) Note: The current Operating Permit includes the PM emission limit for fuel burning equipment (Regulation No. 1, III.A.1.b). The Division has since determined that the fuel burning emission limits are not applicable to these units. The Common Provisions define "fuel burning equipment" as "any furnace, boiler, or other equipment and appurtenances thereto, burning fuel solely for the purpose of producing heat." The ovens and RTOs are not used solely for the purpose of producing heat, therefore they are not subject to the fuel burning standard. Instead, they are subject to the PM emission limit for manufacturing processes.
- Regulation No. 7, IX.A & C, (Reasonably Available Control Technology for VOC emissions)
  - Limits VOC content of coatings
  - Requires minimization of fugitive emissions

Construction Permit 01JE0643 (all lines except C24)

- Regulation No. 6, Part B, III.C.1 and III.C.3 (**State-Only** requirements)
  - Limits PM emissions based on process weight rate
  - Limits opacity to 20%

- Limits criteria pollutant emissions on 4 week and annual bases. Emission limits are revised as described above. In accordance with the Division's short term limit policy, the 4 week period limits are not

included in the permit. The BACT short term limits are sufficient to ensure control equipment and NAAQS requirements are met.

- Limits consumption of materials to the emission limits
- Subject to NSPS Subpart WW, Standards of Performance for the Beverage Can Surface Coating Industry (except only CX3 internal coating operations subject)
- Subject to Best Available Control Technology requirements (except for CX3 12 oz. line)
    - Limits VOC content of various coatings and cleaning solvents, and requires use of RTO
    - Requires an overall capture and control efficiency of 76% for the RTO. Operating parameters are to be identified, and replace the control efficiency requirement in the operating permit
- Requires a source compliance test to demonstrate compliance with RTO capture and control efficiencies – This test was completed in September and October of 2003.
- The RTOs are subject to the NSPS for Incinerators, (Regulation No. 6, Part B, Subpart VII). This regulation includes particulate matter standards and specific requirements for monitoring and test methods. These PM standards are based on the charging rate, which is specified in tons/year. The Division considers these standards were not intended to apply to "incinerators" that are only burning waste gases, since a tons/year charge rate is not practical for that type of incinerator. Since the PM standards do not apply, the Division considers that the monitoring and testing requirements also do not apply. The opacity standard does apply to the RTOs.

Construction Permit 87JE015 requirements that apply to the CX3 12-oz. production line

- Limits coating VOC content to 3.64 lbs/gallon less water
- Subpart 60, Subpart WW, Standards of Performance for the Beverage Can Surface Coating Industry, as adopted by reference in Colorado Regulation No. 6, Part A
    - Limits VOC content of coating to 0.89 kilogram/litre of coating solids for internal coating operations
- Limits cleanup to non-VOC materials. The 01JE0643 PSD analysis included the use of VOC-containing materials, therefore the non-VOC material requirement is not included in this operating permit.

BACT/RACT for Reject Can Bins

The BACT analysis included in the Construction Permit PSD application included a discussion regarding capture efficiency, however, the discussion did not specifically indicate that reject can bins existed, or that emissions from reject cans were not captured. While BACT for the can lines has been

determined to be certain VOC coating limits and the use of the RTOs, the Division believes a separate analysis should be done to cover uncontrolled fugitive emissions from the reject bins. The permittee has subsequently submitted a separate BACT analysis for the reject cans. The Division has determined that BACT for this activity is good operating practices to minimize the number of reject cans. The reject can bins are added to the equipment list, and the BACT requirement is added to the permit. In addition, While Condition 1.6.2 defines RACT for some fugitive VOC emissions, the sources listed are tanks and cleaning operations, which do not specifically apply to sources such as the reject bins. RACT is specified for those can lines with reject bins that are not subject to BACT.

Emission Factors - VOC emissions originate from washing, printing, and internal coating operations. Printing operations produce emissions from the use of inks and coatings and from curing these materials in the UV or thermal ovens, while internal coating operations produce emissions resulting from the use of internal coating and from the curing of the material in thermal ovens. Process fuel burning results in combustion byproduct emissions (NO_x, SO_2, VOC, PM, PM_{10}, and CO). VOC from coating and cleanup activities are estimated using the VOC content of the coatings/materials and the amounts of coatings/materials used and where applicable, the control efficiency of the RTO. Emissions from natural gas combustion are estimated using AP-42.

Monitoring - To monitor compliance with the VOC content limits for coatings, the permittee uses manufacturer's certification in lieu of Regulation No. 7 coating testing requirements. Records of the amounts of materials and fuel used will be kept. Opacity for the coating lines is monitored by daily visual emission observations and Method 9 observations. Temperature, residence time, and capture system duct pressure for the RTO are monitored to ensure compliance with control efficiency requirements. The requirement to monitor fan power use and duct flow is removed from Section II, Condition 1.10. Capture system duct pressure is sufficient to ensure the capture system is operating correctly.

Other emission sources at the facility include the aluminum scrap system, and cooling towers. No modifications are being made to these sources.

II. Reject Cans Fugitive Emissions Reasonably Available Control Technology

Unacceptable cans are automatically rejected from the can lines. The cans are currently rejected to open boxes, resulting in fugitive VOC emissions. These fugitive emissions were not addressed in the BACT analysis submitted with the PSD Construction Permit 01JE0643 application. In addition, fugitive VOC emissions are subject to Colorado Regulation No. 7 RACT requirements.

III. Compliance Assurance Monitoring (CAM)

The requirements set forth in 40 CFR Part 64, as adopted by reference into Colorado Regulation No. 3, Part C, Section XIV, require emission points that use a control device to meet an emission limit or standard, and which have pre-controlled emissions equal to or greater than major source thresholds to submit a CAM plan. Sources for which a Title V application was deemed administratively complete prior to April 20, 1998 are not subject to the CAM requirements until renewal or if a significant permit modification is made that affects a large unit. When a significant permit modification is made, CAM only applies to "large pollutant specific emissions units," which are units which use a control device to meet an emission limit, and for which controlled emissions are greater than 100 tons/year of a criteria pollutant for which a limit applies, or 10 tons/year of a HAP. The can lines use the RTOs to control HAP and VOC emissions, and a bagfilter to control PM overspray emissions. The controlled VOC emissions for each line are as follows:

C04: 68.57 tons/year

C05: 68.72 tons/year

CX3: 44.35 tons/year (total controlled and uncontrolled emissions)

Emissions from each line are less than 100 tons/year, therefore the lines are not subject to CAM at this time.

Internal coating emissions from C24 are controlled by the RTOs and the bagfilter. There is no PM emission limit for C24, therefore CAM does not apply to the PM emissions. The line is subject to the RACT limit for interior body spray. Controlled interior body spray emissions are 28.33 tons/year, therefore CAM does not apply to this limit at this time. Other VOC emissions are not controlled with an add on control device, therefore CAM does not apply to VOC emission limits associated with those uncontrolled emissions.

Controlled HAP emissions from each line are greater than 10 tons/year, however, the only emission limit which applies is the MACT standard. CAM does not apply to MACT standards proposed by the EPA after November 15, 1990, therefore CAM does not apply to the HAP emissions at this facility.

Can line cleaning emissions are not controlled by a control device, therefore CAM does not apply.

The total controlled PM emissions from all lines are <4.9 tons/year, therefore CAM does not apply to PM at this time.

CAM may apply to units at this facility at the time this permit is renewed.